## REMARKS/ARGUMENTS

Favorable reconsideration of this application, as presently amended and in light of the following discussion, is respectfully requested.

Claim 7 has been canceled and the subject matter thereof has been introduced into Claim 6.

New Claim 15 depends from Claim 8 and further recites that the inlet line and the outlet line for heat transfer medium are provided at substantially the same height along the axis of the disk of the lid. Basis for this is clear from Fig. 2. New Claim 16 corresponds to Claim 9 but depends from Claim 15.

In response to the rejection under 35 U.S.C. §112, Claim 6 has been amended to delete the phrase "in proximity with the reactants," and so now simply recites one or more metering and feed devices positionable for introduction of the liquid reactant or reactant mixture from the one or more feed vessel into the one or more reactors. Claim 9 has been amended to revert to the original limitation that the outlet line for the heat transfer medium ends at with an interior wall of the lid enclosing the hollow space. This rejection is therefore believed to be moot.

The drawing objection of paragraph 3 is respectfully traversed. The claimed subject matter is illustrated in the figures. For example, Claim 6 recites reactor modules having a reactor, feed vessels, and metering and feed devices positionable for introduction of reactant from the feed vessel into the reactors. Figure 1 shows the reactor modules at 2, the reactors at 3, the feed vessels at 4, and the metering and feed devices at 5. Fig. 1 also shows that the metering and feed devices have metering fingers 11 located above the reactors and feed vessels so that they can introduce reactant from the feed vessels into the reactors. Since this illustration is commensurate with the limitations of Claim 6, it is not understood how the drawings fail to illustrate essential inter-relationships between the claimed elements.

Claims 6-8 and 10-14 were newly rejected under 35 U.S.C. §102 as being anticipated by U.S. patent 6,673,316 (Okamoto et al). This rejection is respectfully traversed, particularly for the subject matter of Claim 7 which has been incorporated into Claim 6.

Claim 6 now recites an automated synthesis apparatus for carrying out chemical reactions with reflux cooling using reactors, wherein each of the reactors includes a flat lid having an inlet line and an outlet line for a heat transfer medium into or out of a hollow space of the lid. This permits a flat lid, which is essential for miniaturization, to provide sufficient reflux cooling despite its small height. The Office Action has relied on Figures 9 and 36-37 of Okamoto et al to disclose a lid for a reactor in a synthesis apparatus. However, Okamoto et al is quite different from the present invention and, in any case, lacks a "flat" lid.

Figure 9 of Okamoto et al illustrates an embodiment wherein a synthesis reaction container 15 is provided with a seal cap 49 having a through hole 49a for a reagent introducing needle 45. A cooling tube 48 is mounted to the top of the seal cap 49 and includes a cooling section 48c having a large surface area to cool the high temperature gas flowing from a synthesis reaction. Since no lines are provided for flowing a heat transfer medium through the cooling tube 48 – the cooling tube evidently functions by heat transfer with the surrounding air -- it must have a substantial height in order to achieve sufficient surface area for adequate reflux cooling, i.e., it is not in a "flat lid."

In the further embodiment of Figures 36 and 37, the introducing tube 402 is mounted to the apparently solid lid 407 for the container 401. In this case, the introducing tube 402 is provided with an inner tube 403 and an outer tube 404 which form a space into which a cooling medium can flow via the coolant lines 404a and 404b. However, while Okamoto et al here provides a cooling medium flow for enhanced cooling, it fails to incorporate the structure into the lid 407 but instead mounts the cooling medium flow elements on a separate

coolant tube which is mounted to the top of the lid 407. Thus miniaturization is not possible in Okamoto et al.

In summary, Okamoto et al discloses an automated synthesis apparatus having reflux cooling, but insists on placing the reflux cooling structure in a coolant tube mounted to the top of the lid, and does not incorporate the heat transfer medium inlet and outlet lines into the flat lid itself for miniaturization. Amended Claim 6 therefore defines over this reference.

Claim 8 further recites that the lid is a flat disc, and new Claim 15 recites that the inlet line and the outlet line for the heat transfer medium are provided at substantially the same height along the axis of the disk of the lid. The flow of the heat transfer medium within the lid is therefore in the horizontal direction, which permits coolant flow for adequate reflux cooling without excess height which would be counter to miniaturization.

Applicants therefore believe that the present application is in a condition for allowance and respectfully solicit an early notice of allowability.

Respectfully submitted,

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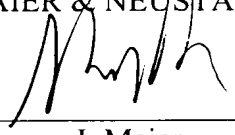

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